

ABSTRACT

A discharge lamp system and method of operating a discharge lamp system in which vertical segregation of vapor phase species is reduced. Lamp power is modulated with an arc-straightening frequency and with a frequency that excites a combination radial plus longitudinal acoustic mode of the lamp. The combination radial plus longitudinal acoustic mode may be a combination first radial mode and nth longitudinal acoustic mode and may be excited with a single power frequency or a swept power frequency range. The two frequencies may be provided at the same time, or separately where the modulation at the arc-straightening frequency is 2 to 16 times longer than a subsequent modulation at the combination radial plus longitudinal acoustic mode.